

C. Remarks

The claims are 1-7, with claim 1 being the sole independent claim.

Reconsideration of the present claims is expressly requested.

Claims 1-7 have been rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 5,992,974 (Miyata) in view of U.S. Patent No. 4,875,968 (O'Neill). These rejections are respectfully traversed.

Prior to addressing the merits of rejection, Applicant would like to briefly review some of the key features of the presently claimed invention. The present invention is directed to a method of manufacturing a liquid jet recording head. In this method, an anisotropic-etching mask is formed on a nozzle surface of the top plate. Then, this mask is patterned to form a compensation pattern, which extends over a portion of the top plate, which is later removed to form the liquid chamber.

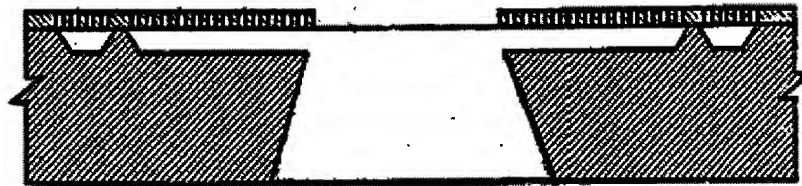
The top plate is anisotropically etched using the compensation pattern as a mask. The etching is conducted so that the top plate is over-etched, i.e., in addition to the portion of the top plate not covered (not masked) with the compensation pattern, a portion of the top plate under the compensation pattern (masked by the compensation pattern) is also removed while the compensation pattern is still present. For example, amended Fig. 2B shows an example of the back side of the wafer, and over-etching under the compensation patterns can be clearly seen.

Miyata is directed to an ink-jet head having nozzle openings through which ink droplets are discharged. The Examiner has acknowledged on page 5 of the Office Action that, as previously argued by Applicant, Miyata does not teach over-etching as

presently claimed. However, the Examiner has now relied on O'Neill for the teaching of over-etching. Applicant respectfully submits that O'Neill does not contain such a teaching.

O'Neill is directed to a method of making an ink jet printhead. O'Neill, however, does not disclose or suggest removing a portion of the substrate still covered with the mask i.e., there is no etching of the substrate under the mask while the mask is still present (that is, over-etching).

Applicant submits that if O'Neill taught over-etching using layer 25 as a mask, the structure in Fig. 5, which the Examiner used to show the alleged teaching, would look as follows:



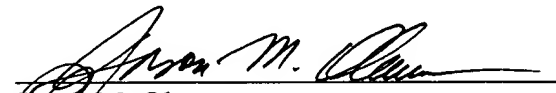
This, however, is not how the etching is performed in O'Neill, which is further evidenced by Fig. 3. Specifically, the wall of the reservoir 24 in Fig. 3 of O'Neill would not be inclined away from the center if over-etching took place.

In fact, the etching that takes place in O'Neill is similar to the etching of the ink cavity 2 in Fig. 5(e) of Miyata. The same inclination of the etched walls shown in Miyata can be observed in Fig. 5 in O'Neill. Therefore, it is clear that neither Miyata nor O'Neill discloses or suggests over-etching as presently claimed. Accordingly, Miyata and O'Neill, whether considered alone or in combination (if proper), cannot affect the patentability of the presently claimed invention.

Wherefore, Applicant respectfully requests that the outstanding rejections be withdrawn and that the present case be passed to issue.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address given below.

Respectfully submitted,


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